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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chan-Wah Ng

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EXAMINER

MITCHELL, DANIEL D

ART UNIT

PAPER NUMBER

2419

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,418	<b>Applicant(s)</b> NG ET AL.	
	<b>Examiner</b> DANIEL MITCHELL	<b>Art Unit</b> 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 6/19/2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendment filed on has been entered Claims 1-8 are canceled. Claims 9-15 have been added. Claims 9-15 are still pending, with claims 9 and 15 being independent.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9 and 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (U.S. Publication No. 2002/0031108 A1), hereinafter referred as Inoue in view of Hsing et al. (U.S. Patent No. 6,167,025), hereinafter referred as Hsing..

Regarding claim 9, Inoue discloses a mobile network control apparatus **[fig. 1 element 20 and par. 76 describes the device as a router]** that maintains a connection constructed between a mobile network **[fig. 1 element 12 – mobile network]** and a global network **[fig.1 element 7]** and that has a plurality of interfaces **[fig.1 element 20 has a plurality of interfaces]**, the mobile network control apparatus.

a multi-homing detection section that detects whether or not the mobile network control apparatus is multi-homed, wherein: as the second interface, the ingress

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interface having a connection route to the alternative apparatus **[par. 78 teaches that a mobile device 20 can reach the global network through element 1]**, and

when the mobile network control apparatus is multi-homed **[par. 48 discloses a mobile device 20 that can store a plurality of addresses for a single communication**

**interface which teaches a device that is multi-homed]**, the search section searches

for an alternative egress interface having the connection route to the global network

from the plurality of interfaces, and determines the alternative egress interface as the

second interface **[par. 77 teaches the mobile device has multiple interfaces that**

**can be made available for a communication interface to a global network but one**

**is a primary interface and the others can be used for a back-up interface.**

when the mobile network control apparatus is not multi-homed, the search section

searches for an alternative apparatus **[fig. 1 element 9]** having the connection route to

the global network **[fig. 1 element 7]** and belonging to the mobile network, and

determines an ingress interface of the plurality of interfaces.

**However Inoue does not expressly disclose a failure detection section that**

**detects a failure of packet tunneling executed using a first interface of the**

**plurality of interfaces, the first interface having a connection route to the global**

**network; a search section that searches for a second interface from the plurality**

**of interfaces when the failure is detected; an execution section that executes**

**packet tunneling using the second interface instead of the first interface.**

Hsing discloses in **[fig. 2]** a failure detection section 9 (**element 214 and col. 10 lines 58-61**) for detecting path failures, a searching section (**element 218 and col. 9 lines 49-65**), and an execution section (**element 220 and col. 9 lines 21-26**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Inoue to include a failure detection section, a searching section and an execution. One would be motivated as such in order to implement a connection restoration method **col. 4 lines 1-15**.

Regarding claim 15, see similar rejection as to claim a 1.

4. Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (U.S. Publication No. 2002/0031108 A1), hereinafter referred as Inoue in view of Ishiyama et al. (U.S. Publication No. 2001/0014917 A1), hereinafter referred s Ishiyama.

Regarding claim 10, Inoue and Hsing disclose an apparatus as to the parent claim. **However Inoue and Hsing do not expressly disclose the search section comprises a registration section that registers a binding between an address of the ingress interface and an address of the mobile network control apparatus.**

Ishiyama discloses in **[par. 157]** the search section searches for another alternative apparatus when the registration section **[fig. 5 element 316 binding registration section]** fails to register the binding.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Inoue and Hsing to include a binding registration section. One would be motivated as such in order to maintain communication with a mobile device as it moves changes position among networks **[par. 7]**.

Regarding claim 11, Inoue and Hsing disclose an apparatus as to the parent claim. **However Inoue and Hsing do not expressly disclose wherein when a current address of the ingress interface is not a global address, the registration section acquires a global address from the alternative apparatus and registers a binding between the acquired global address and the address of the mobile network control apparatus.**

Ishiyama discloses in **[par. 36]** the binding of a unique node identifier (global address) and a position identifier (not a global address).

See similar motivation as claim 10.

Regarding claim 12, Inoue and Hsing disclose an apparatus as to the parent claim. **However Inoue and Hsing do not expressly disclose wherein the search section searches for another alternative apparatus when the registration section fails to acquire the global address.**

Ishiyama discloses in **[par. 157]** upon a binding registration failure another element to receive a binding registration will be searched for. See similar motivation as claim 10.

Regarding claim 13, Inoue and Hsing disclose an apparatus as to the parent claim.

Inoue discloses in **par. 74-79** (if an interface to a resource, from the mobile device does not exist, then another apparatus (gateway) can be used to commence communication to the global network) wherein when there is not the alternative egress interface as a result of searching for the alternative egress interface from the plurality of interfaces, the search section searches for the alternative apparatus, and determines the ingress interface of the plurality of interfaces as the second interface, the ingress interface having the connection route to the searched alternative apparatus **[fig 1]** illustrates the an interface of the terminal device **element 20** to reach the global network **element 7** through gateway **element 1**.

Regarding claim 14, Inoue and Hsing disclose a mobile network apparatus to the parent claim. **However Inoue does not expressly disclose wherein: the search section comprises a registration section that registers a binding between an address of the alternative egress interface and an address of the mobile network control apparatus, and the search section searches for another alternative egress interface when the registration section fails to register the binding.**

Ishiyama discloses **[fig. 5]** teaches a binding registration unit and **[par. 157]** teaches that when a binding registration fails, the binding register will attempt to register a binding with another element.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Inoue and Hsing to include a binding registration section. One would be motivated as such in order maintain communication with a mobile device as it moves changes position among networks [par. 7].

### ***Conclusion***

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL MITCHELL whose telephone number is



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(571)270-5307. The examiner can normally be reached on Monday - Friday 8:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shah G. Chirag can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M./  
Examiner, Art Unit 2619

/Chirag G. Shah/  
Supervisory Patent Examiner, Art Unit 2619